

# Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs

*July 2014 through June 2019*

## EXECUTIVE SUMMARY

This report is the fourteenth in a series on infrastructure needs that began in the late 1990s. These reports to the General Assembly present Tennessee's public infrastructure needs as reported by local officials, those compiled by the Tennessee Department of Transportation, and those submitted by other state departments and agencies as part of their budget requests to the Governor. This report provides two types of information collected during fiscal year 2014-15 and covering the five-year period July 2014 through June 2019: (1) needed infrastructure improvements and (2) the condition of existing public school buildings. Infrastructure needs fall into six broad categories. See table 1.

**Table 1. Summary of Reported Infrastructure Improvement Needs**  
*Five-year Period July 2014 through June 2019*

Category	Five-year Reported Estimated Cost	
Transportation and Utilities	\$ 25,386,780,890	61.2%
Education	8,529,590,647	20.6%
Health, Safety, and Welfare	4,985,318,863	12.0%
Recreation and Culture	1,577,570,362	3.8%
General Government	613,802,595	1.5%
Economic Development	378,847,249	0.9%
<b>Grand Total</b>	<b>\$ 41,471,910,606</b>	<b>100.0%</b>

A number of conclusions may be drawn from the information compiled in the inventory:

- Public infrastructure needs and the ability to meet them vary across the state, and wealth and population factors are strongly tied to both. In general, the more people a county has and the more its population grows, the more infrastructure it will need and, fortunately, the more wealth it will likely have to pay for those needs. As has been the case throughout the history of this inventory, relationships among these factors are strong and well demonstrated by the variation reported for each Tennessee county, although they are not perfectly aligned in any county. Some counties are able to meet their infrastructure needs more easily than others, some continue to report the same needs year after year, and even fast growing

The Tennessee General Assembly charged the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) with developing and maintaining an inventory of infrastructure needs "in order for the state, municipal, and county governments of Tennessee to develop goals, strategies, and programs that would

- improve the quality of life of its citizens,
- support livable communities, and
- enhance and encourage the overall economic development of the state."

*[Public Chapter 817  
Acts of 1996]*

counties can find it difficult to meet their needs. And, relative to county population, counties with small populations need and complete just as much or more infrastructure than counties with large populations.

- The total estimated cost of public infrastructure improvements that need to be started or completed in fiscal years 2014 through 2019 is estimated at \$41.5 billion. As shown in table 2, this total is \$299 million less than the estimate in last year's inventory, a decrease of 0.7%, mainly because of a \$611 million decrease in the Transportation and Utilities category that was driven by \$1 billion in decreased costs for road projects already in the inventory.

**Table 2. Comparison of Estimated Cost of Infrastructure Improvement Needs**  
*July 2013 Inventory vs. July 2014 Inventory*

Category	Reported Cost		Difference	Percent Change
	July 2013 through June 2018	July 2014 through June 2019		
Transportation and Utilities	\$ 25,997,869,316	\$ 25,386,780,890	\$ (611,088,426)	-2.4%
Education	8,325,726,373	8,529,590,647	203,864,274	2.4%
Health, Safety, and Welfare	4,720,186,737	4,985,318,863	265,132,126	5.6%
Recreation and Culture	1,696,891,580	1,577,570,362	(119,321,218)	-7.0%
General Government	670,027,009	613,802,595	(56,224,414)	-8.4%
Economic Development	359,794,728	378,847,249	19,052,521	5.3%
<b>Grand Total</b>	<b>\$ 41,770,495,743</b>	<b>\$ 41,471,910,606</b>	<b>\$ (298,585,137)</b>	<b>-0.7%</b>

- Local officials are confident in obtaining funding for only \$11.8 billion of the \$32.7 billion needed to meet local infrastructure improvement needs. Most of that amount, \$11.3 billion, is for needs that are fully funded; \$528 million is for needs that are only partially funded; and another \$20.9 billion is not yet available. These figures do not include improvements for which funding information is not collected, such as improvements at existing schools and those in state agencies' capital budget requests.
- Of the infrastructure improvements that were needed in 2009 and completed by 2014, 37.5% is owned by the state, 34.2% by counties, and 22.6% by cities. Special districts own 4.4%, and the remaining 1.3% is jointly owned. The government that owns infrastructure typically funds the bulk of its cost, and a variety of revenue sources are tapped. For example, the state collects taxes and appropriates those funds to their own projects and provides grants to the local level through programs at various agencies. Cities and counties fund most of their infrastructure improvements with revenue from property and sales taxes, while utility districts have a dedicated revenue source in the form of user fees. The federal government owns very little of the infrastructure in the inventory but provides substantial funding for transportation infrastructure.

- Unfunded infrastructure improvement needs are much less likely to be completed the longer they remain unfunded. For example, of the improvements needed in the current inventory that have been in the conceptual stage for three years, 28.7% are now fully funded. Only 0.04% of conceptual needs that have been in the inventory for eight years are now fully funded, and 82.5% of that is for transportation improvements. Revenue sources matter when it comes to this growing backlog of unfunded infrastructure improvements. For example, transportation infrastructure depends on a revenue stream that has been declining relative to need for many years because fuel costs and the related taxes have declined, but water and wastewater infrastructure is paid for by utility customers, for which only 7.8% of 8-year old projects remain unfunded in this inventory.
- Transportation and Utilities has always been the single largest category in the inventory and it remains so despite a decrease of \$611 million (2.4%) from last year to \$25.4 billion. This decrease, driven by a combination of decreased costs for existing road projects and road projects that were completed, canceled, or postponed, would be greater if not for the addition of new projects. Nearly \$200 million, or roughly one-fifth, of the decrease in road costs is reductions resulting from the Tennessee Department of Transportation's Expedited Delivery Program, which develops lower cost, more timely alternatives for projects that have been needed but not funded for a long time. Comprising 60.7% of estimated costs for all infrastructure improvements, transportation alone dwarfs all other types of infrastructure needs.
- Education is the second largest category and increased \$204 million (2.4%) to \$8.5 billion, mainly because of a \$218 million (10.5%) increase in the amount needed to renovate or replace existing public school buildings. This increase was partially offset by an \$80 million (5.1%) decrease in the need for new school space. Asked about the overall condition of their school buildings, public school officials reported that 91.6% are in good or better condition. Post-secondary education accounted for 29.9% of the increase in the education category—there was a \$61 million (1.3%) increase in improvement needs at the state's public college and university campuses, which now stands at \$4.6 billion.
- Health, Safety, and Welfare, the third largest category in the inventory, increased by \$265 million (5.6%) to \$5.0 billion. This increase resulted primarily from increases in the need for improved water and wastewater, and infrastructure needed for storm water. Water and wastewater accounts for the largest portion of the category at \$3.3 billion; it increased by \$202 million (6.5%) from last year as the cost and extent of EPA-decreed improvements in Nashville increased. The amount needed for storm water improvements increased by \$95 million (91.9%) to \$198 million, and the estimated cost for public health facilities improvements increased by \$87 million (24.7%) to \$441 million, both driven by the addition of a few costly, new projects. The total cost of two other types of infrastructure in this category also increased: fire protection increased by \$1.8 million (1.1%) to \$168 million and public housing increased by \$800,000 (75.6%) to \$1.9 million. The estimated cost of infrastructure improvements needed for law enforcement and solid waste decreased—law enforcement

decreased \$117 million (12.6%) to \$812 million, and solid waste decreased \$5 million (15.9%) to \$26 million—primarily a reflection of projects completed.

- The Recreation and Culture category decreased overall by \$119 million (7.0%) to \$1.6 billion because of decreases in all three types of infrastructure in this category but mainly because of community development projects that were completed, which reduced the total for that type of infrastructure by \$79 million (29.5%) to \$190 million. The estimated cost for libraries, museums, and historic sites decreased by \$25 million (6.9%) to \$343 million—few new projects of this type were added to the inventory, while several were completed, canceled, or reported as having a cost reduction. In addition, the estimated cost of infrastructure for recreation decreased \$14 million (1.4%) to \$1.0 billion as completed and canceled projects slightly outweighed the costs of new projects added.
- The estimated cost of General Government infrastructure improvements decreased by \$56 million (8.4%) to \$614 million. This category includes only two types of infrastructure: public buildings and other facilities. The estimated cost of improvements in other facilities such as those used for storage and maintenance decreased by \$49 million (35.4%) to \$89 million, and the need for improvements in public buildings decreased by \$7 million (1.4%) to \$525 million.
- The estimated cost of infrastructure improvements in the Economic Development category—the smallest category this year—increased by \$19 million (5.3%) since the last inventory and now totals \$379 million, mainly because a new \$40 million industrial park access road project at the Airport Industrial Park in White County produced a net \$28 million (11.8%) increase in the cost of industrial sites and parks, which now totals \$261 million. The cost of business district development decreased by \$9 million (6.8%) to \$118 million.